T. E. MURRAY.

JUNCTION BOX FOR CIRCUIT CONDUCTORS.

APPLICATION FILED MAR. 9, 1912.

1,028,260. Patented June 4, 1912.

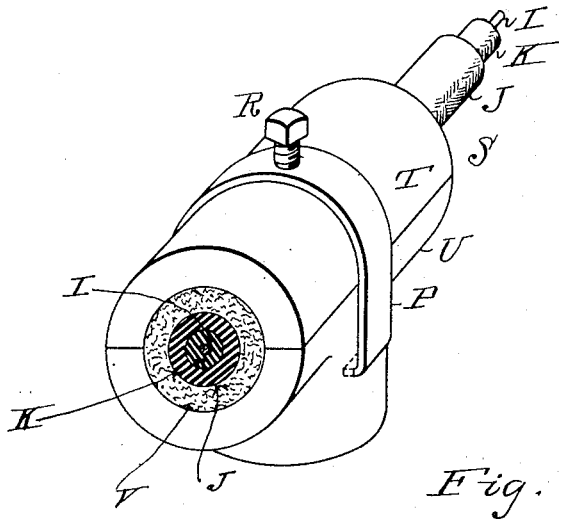

Fig. 1.

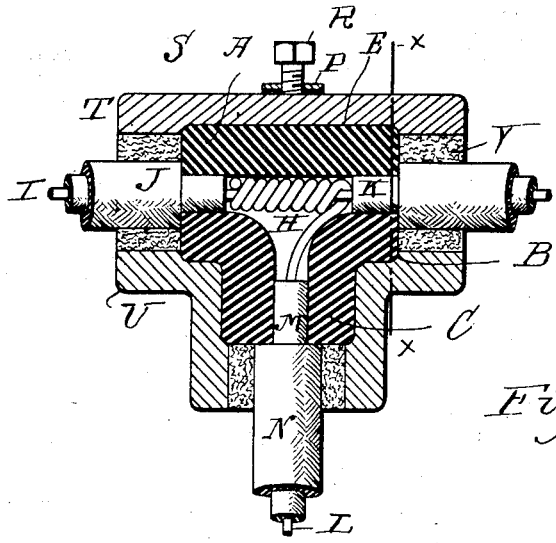

Fig. 2.

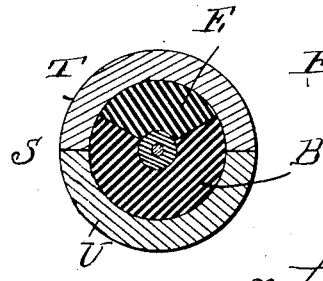

Fig. 3.

Witnesses:
May J. McGarry
Gertrude A. Porter

Inventor
Thomas E. Murray
By his Attorney
Louis Benjamin

UNITED STATES PATENT OFFICE.

THOMAS E. MURRAY, OF NEW YORK, N. Y.

JUNCTION-BOX FOR CIRCUIT-CONDUCTORS.

1,028,260. Specification of Letters Patent. Patented June 4, 1912.

Original application filed September 11, 1911, Serial No. 648,797. Divided and this application filed March 9, 1912. Serial No. 682,645.

To all whom it may concern:

Be it known that I, THOMAS E. MURRAY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Junction-Boxes for Circuit-Conductors, of which the following is a specification.

The invention is a junction box, designed to protect a joint formed between main and branch line conductors and more especially those having a cover of insulating material and an outer sheath of metal.

The invention consists in the construction, hereinafter set forth, whereby the joint is inclosed in a casing of refractory insulating material and an outer casing of metal, so as to be completely protected from current leakage, moisture or the weather, and whereby said casing may be easily applied and removed.

This application is a division of my copending application, Serial No. 648,797, filed Sept. 11, 1911.

In the accompanying drawings my invention is shown applied to the joint formed between a main line and branch conductor.

Figure 1 is a perspective view of the device. Fig. 2 is a longitudinal section thereof. Fig. 3 is a cross section on line x, x of Fig. 2.

Similar letters of reference indicate like parts.

A is a casing, formed of porcelain or other refractory insulating material in two parts, namely, (1) a tubular portion B which is open at both ends, and has a gap in its wall, and a tubular offset C integral with said portion B: and (2) a closing piece E for said gap. The inner end of the bore of offset C is enlarged or flared, as shown at H.

The device is applied to the joint in the following manner. Within the casing A the main conductor I is denuded of its lead sheath J so as to expose the insulating cover K. The middle portion of said exposed insulating cover is removed to expose the metallic conductor over a distance sufficient to enable the bared end of the branch conductor L to be coiled about said main conductor. A portion of the insulating cover M of said conductor L just beyond said bared portion is also exposed. The diameter of the bores in the tubular portion B and offset C is such that the insulating covers M, K fit snugly therein. The closing piece E being removed, the main conductor is laid in the bore of tubular portion B, and the bared end of branch conductor L after being led through the bore of offset C is twisted, as before noted, around said main conductor to form the joint therewith.

S is an inclosing cover of iron or other suitable metal, of similar shape to casing A, and formed in sections T, U. The openings in said cover are made larger in diameter than the sheaths of the conductors, but less in diameter than the outer end faces of the casing A, so that said outer faces form shoulders against which the extremities of the lead sheaths rest, as shown in Fig. 2. The clearance space around the sheaths in said openings is packed with lead floss, as shown at V, to form moisture-proof joints. A metal strap P, provided with clamping screw R, connects the two parts of the cover S.

I claim:

A junction box for main and branch conductors, of the type in which the conductor has an insulating covering and an outer metal sheath, comprising a casing of refractory insulating material formed integrally of a tubular portion open at both ends and having a gap in its wall, and a tubular offset communicating with said tubular portion, a closing piece for said gap, means for detachably securing said closing piece in said gap, and an outer casing of metal inclosing said casing of insulating material and formed in separable sections: the bores of said tubular portion and offset being of a diameter to fit the insulating cover of said conductors, the openings in said metal casing being of less diameter than the end faces of said tubular portion and offset and of larger diameter than the sheath of said conductors, and a packing of lead floss in the clearance spaces between said conductor sheaths and said outer casing openings.

In testimony whereof I have affixed my signature in presence of two witnesses.

THOMAS E. MURRAY.

Witnesses:

GERTRUDE T. PORTER,

MAY T. MCGARRY.